Claims

1. A composition for use in breast cancer therapy in humans comprising, in amounts effective to produce a superadditive antitumour effect, (a) an antineoplastic agent in a pharmaceutically acceptable carrier and/or diluent, and (b) an aromatase inhibitor in a pharmaceutically acceptable carrier and/or diluent, provided that when the antineoplastic agent is a combination consisting of cyclophosphamide, doxorubicin and 5-fluorouracyl, then the aromatase inhibitor is not aminogluthetimide.

2. A composition according to claim 1, wherein the antineoplastic agent is selected from an antineoplastic topoisomerase II inhibitor, an antineoplastic antimicrotubule agent, an antineoplastic alkylating agent, an antineoplastic antimetabolite, and an antineoplastic topoisomerase I inhibitor, and the aromatase inhibitor is selected from exemestane, formestane, fadrozole, vorozole, letrozole, anastrozole and YM 511.

3. A composition according to claim 2. wherein the antineoplastic agent is selected from an anthracycline compound, an anthraquinone compound, a podophillotoxine compound, a taxane compound, a vinca alkaloid, an alkylating agent, an antineoplastic antimetabolite agent and an antineoplastic topoisomerase I inhibitor.

4. A composition according to claim 3, wherein the anthracycline compound is selected from doxorubicin, epirubicin, idarubicin and nemorubicin; the anthraquinone compound is selected from mitoxantrone and losoxantrone; the podophillotoxine compound is selected from etoposide and teniposide; the taxane compound is selected from paclitaxel and docetaxel; the vinca alkaloid is selected from vinblastine and vinorelbine; the alkylating agent is selected from cyclophosphamide, ifosfamide, melphalan and PNU 159548; the antineoplastic antimetabolite agent is selected from 5-fluorouracil, capecitabine, gemcitabine, methotrexate and edatrexate; and the antineoplastic topoisomerase I inhibitor is selected from topotecan, irinotecan, 9-nitrocamptothecin and PNU 166148.

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5. A composition according to claim 3, wherein such a composition comprises 1, 2 or 3 antineoplastic agents selected from epirubicin, doxorubicin, idarubicin, paclitaxel, docetaxel, 5-fluorouracil, cyclophosphamide and vinorelbine, and 1 or 2 steroidal aromatase inhibitors selected from exemestane, formestane, anastrozole, letrozole and fadrozole.

6. A composition according to claim 2, wherein the antineoplastic agent is selected from an anthracycline and a taxane compound and the steroidal aromatase inhibitor is exemestane.

7. A composition according to claim 5, wherein the composition comprises one or two antineoplastic agents selected from epirubicin and docetaxel and the steroidal aromatase inhibitor is exemestane.

8. A composition, according to anyone of the preceding claims, wherein:

- the effective antineoplastic amount of vinblastine is from about 3 mg/m^2 to about 10 mg/m^2;
- the effective antineoplastic amount of doxorubicin is from about 20 mg/m^2 to about 100 mg/m^2;
- the effective antineoplastic amount of epirubicin is from about 20 mg/m^2 to about 200 mg/m^2;
- the effective antineoplastic amount of idarubicin is from about 1 mg/m^2 to about 50 mg/m^2;
- the effective antineoplastic amount of mitoxantrone is from about 10mg/m^2 to about 20 mg/m^2;
- the effective antineoplastic amount of paclitaxel is from about 100 mg/m^2 to about 300 mg/m^2;
- the effective antineoplastic amount of docetaxel is from about 50 mg/m^2 to about 100 mg/m^2;
- the effective antineoplastic amount of vinorelbine is from about 15 mg/m^2 to about 30 mg/m^2;

- the effective antineoplastic amount of cyclophosphamide is from about 100 mg/m^2 to about 1500 mg/m^2;
- the effective antineoplastic amount of melphalan is from about 1 mg/m^2 to about 10 mg/m^2;
- the effective antineoplastic amount of 5-fluorouracil is from about 100 mg/m^2 to about 1000 mg/m^2;
- the effective antineoplastic amount of capecitabine is from about 10 mg/m^2 to about 1000 mg/m^2;
- the effective antineoplastic amount of methotrexate is from about 10 mg/m^2 to about 1000 mg/m^2;
- the effective antineoplastic amount of topotecan is from about 1. mg/m^2 to about 5 mg/m^2;
- the effective antineoplastic amount of irinotecan is from about 50 mg/m^2 to about 350 mg/m^2;

and the effective amount of aromatase inhibitor is from about 0.5 to about 500 mg.

9. A composition according to claim 8, wherein when administered orally, the amount of aromatase inhibitor exemestane is from about 5 to about 200 mg, fadrozole from about 0.5 to about 10 mg, letrozole from about 0.5 to about 10 mg, and anastrozole from about 0.5 to about 10 mg.

10. A composition according to claim 8, wherein when administered parenterally, the amount of aromatase inhibitor exemestane is from about 50 to about 500 mg, and formestane is from about 250 to about 500 mg.

11. A product containing an antineoplastic agent and an aromatase inhibitor, in amounts effective to produce a superadditive antitumor effect, for separate, simultaneous or sequential administration in breast cancer therapy in humans, and wherein when the antineoplastic agent is a combination consisting of cyclophosphamide, doxorubicin and 5-fluorouracyl, then the aromatase inhibitor is not aminogluthetimide.

12. Use of an antineoplastic agent in the manufacture of a pharmaceutical composition for the treatment of breast cancer in a method additionally comprising the administration of an aromatase inhibitor, in amounts effective to produce a superadditive antitumor effect, and wherein when the antineoplastic agent is a combination consisting of cyclophosphamide, doxorubicin and 5-fluorouracyl, then the aromatase inhibitor is not aminogluthetimide.

13. A method for treating breast cancer in humans, the method comprising administering to a human in need thereof (a) an antineoplastic agent and (b) an aromatase inhibitor, in amounts effective to produce a superadditive antitumor effect, provided that when the antineoplastic agent is a combination consisting of cyclophosphamide, doxorubicin and 5-fluorouracyl, then the aromatase inhibitor is not aminogluthetimide.

14. A method, according to claim 13, wherein the antineoplastic agent is selected from an antineoplastic topoisomerase II inhibitor, an antineoplastic antimicrotubule agent, an antineoplastic alkylating agent, an antineoplastic antimetabolite and an antineoplastic topoisomerase I inhibitor, and the aromatase inhibitor is selected from exemestane, formestane, fadrozole, vorozole, letrozole, anastrozole and YM 511.

15. A method according to claim 14, wherein the antineoplastic agent is selected from an anthracycline compound, an anthraquinone compound, a podophillotoxine compound, a taxane compound, a vinca alkaloid, an alkylating agent, an antineoplastic antimetabolite agent and an antineoplastic topoisomerase I inhibitor.

16. A method according to claim 15, wherein the anthracycline compound is selected from doxorubicin, epirubicin, idarubicin and nemorubicin; the anthraquinone compound is selected from mitoxantrone and losoxantrone; the podophillotoxine compound is selected from etoposide and teniposide; the taxane compound is selected from paclitaxel and docetaxel; the vinca alkaloid is selected from vinblastine and vinorelbine; the alkylating agent is selected from cyclophosphamide ifosfamide, melphalan and PNU 159548; the antineoplastic antimetabolite agent is selected from 5-

fluorouracil, capecitabine, gemcitabine, methotrexate and edatrexate; and the antineoplastic topoisomerase I inhibitor is selected from topotecan, irinotecan, 9-nitrocamptothecin and PNU 166148.

17. A method according to claim 15, wherein 1, 2 or 3 antineoplastic agents selected from epirubicin, doxorubicin, idarubicin, paclitaxel, docetaxel, 5-fluorouracil, cyclophosphamide and vinorelbine, and 1 or 2 steroidal aromatase inhibitors selected from exemestane, formestane, anastrozole, letrozole and fadrozole are administered.

18. A method according to claim 14, wherein the antineoplastic agent is selected from an anthracycline compound and a taxane compound and the steroidal aromatase inhibitor is exemestane.

19. A method according to claim 18, wherein one or two antineoplastic agents selected from epirubicin and docetaxel and the steroidal aromatase inhibitor exemestane are administered.

20. A method according to claim 16 or 17, wherein:

- the effective antineoplastic amount of vinblastine is from about 3 mg/m^2 to about 10 mg/m^2;
- the effective antineoplastic amount of doxorubicin is from about 20 mg/m^2 to about 100 mg/m^2;
- the effective antineoplastic amount of epirubicin is from about 20 mg/m^2 to about 200 mg/m^2;
- the effective antineoplastic amount of idarubicin is from about 1 mg/m^2 to about 50 mg/m^2;
- the effective antineoplastic amount of mitoxantrone is from about 10 mg/m^2 to 10 about 20 mg/m^2;
- the effective antineoplastic amount of paclitaxel is from about 100 mg/m^2 to about 300 mg/m^2;
- the effective antineoplastic amount of docetaxel is from about 50 mg/m^2 to about 100 mg/m^2;

- the effective antineoplastic amount of vinorelbine is from about 15 mg/m^2 to about 30 mg/m^2;
- the effective antineoplastic amount of cyclophosphamide is from about 100 mg/m^2 to about 1500 mg/m^2;
- the effective antineoplastic amount of melphalan is from about 1 mg/m^2 to about 10 mg/m^2;
- the effective antineoplastic amount of 5-fluorouracil is from about 100 mg/m^2 to about 1000 mg/m^2;
- the effective antineoplastic amount of capecitabine is from about 10 mg/m^2 to about 1000 mg/m^2;
- the effective antineoplastic amount of methotrexate is from about 10 mg/m^2 to about 1000 mg/m^2;
- the effective antineoplastic amount of topotecan is from about 1 mg/m^2 to about 5 mg/m^2;
- the effective antineoplastic amount of irinotecan is from about 50 mg/m^2 to about 30 350 mg/m^2;

and the effective amount of aromatase inhibitor is from about 0.5 to about 500 mg.

21. A method according to claim 19, wherein when administered orally, the amount of aromatase inhibitor exemestane is from about 5 to about 200 mg, fadrozole from about 0.5 to about 10 mg, letrozole from about 0.5 to about 10 mg, and anastrozole from about 0.5 to about 10 mg.

22. A method according to claim 19, wherein when administered parenterally, the amount of aromatase inhibitor exemestane is from about 5 to about 500 mg, and formestane is from about 250 to about 500 mg.

23. A method for lowering the side effects in humans caused by breast cancer therapy with an antineoplastic agent, the method comprising administering to a human in need thereof a combined preparation comprising (a) an antineoplastic agent and (b) an aromatase inhibitor, in a quantity to produce a superadditive antitumor effect, provided that when the antineoplastic agent is a combination consisting of

cyclophosphamide, doxorubicin and 5-fluorouracyl, then the aromatase inhibitor is not aminogluthetimide.